



111019

AFFIDAVIT OF SEYMOUR A. LUBETKIN

1/6/94

STATE OF FLORIDA §
COUNTY OF Palm Beach §

Seymour A. Lubetkin, having been duly sworn, affirms:

1. I, Seymour A. Lubetkin, was the Chief Engineer of the Passaic Valley Sewerage Commissioners ("PVSC") between 1954 and 1978. I have personal knowledge of the matters discussed in this Affidavit.

2. **Education and Employment:** I hold a Master of Civil Engineering (1957) and a Master of Science in Electrical Engineering (1950). I received a Bachelor of Science in Mechanical Engineering in 1947. I am a member of Tau Beta Pi, the national honorary engineering society, and a Diplomate to the American Academy of Environmental Engineers. I received the Dr. H. Heukelekian Industrial Waste Award from the New Jersey State and Federal Water Pollution Control Association in 1973, and the William D. Hatfield Award for Outstanding Performance in the Operation, Management and Advancement of Knowledge in the field of Water Pollution Control in 1983. I am listed in Who's Who in Engineering. I have served as an arbitrator for the New York Stock Exchange.

3. In 1950, I was employed as Assistant Chief Engineer of the PVSC. In 1954, I was promoted to the position of Chief Engineer, which I held until 1978. As Chief Engineer, I directed all operations of the PVSC, the largest sewerage authority in New Jersey. I was responsible for the annual operating budget of the PVSC, of almost \$9 Million, as well as the PVSC's purchasing, investments, and accounting procedures. I directed the activities of the PVSC's more than 200 employees, including the Operating, Engineering, Inspection and Maintenance Personnel (which included the Bypass Crews).. I established pollution control programs involving industrial permits, sewer use ordinances, river and industrial monitoring and pretreatment systems. I wrote the PVSC annual reports and testified as an expert on pollution and the solutions to the problems it causes.

4. I am currently a consulting engineer. I am the author of several articles, in addition to the Annual Reports to the Passaic Valley Sewerage Commissioners for the Years 1971, 1972, 1973, 1974, 1975 and 1976 ("Annual Reports").

5. **Bypassing:** Some of the municipalities discharging into the PVSC system had combined sewers. Because the capacity of the PVSC's treatment plant and trunk line was not sufficient to handle all the waste together with rain water generated in times of peak flow, between 1950 and 1978 the PVSC periodically discharged untreated sewage, including industrial waste streams, directly to the Passaic River. Therefore, the untreated waste of every municipality, including industries, connected to a municipal sewer line served by the PVSC between 1950 and 1978 was diverted to the Passaic River on a periodic basis. The practice of diverting sewage directly to the River was called "bypassing."

6. Because the capacity of the trunk line did not change materially, I believe that PVSC continued to bypass untreated waste to the Passaic River after 1978.

7. **PVSC's Trunk Line:** Before 1902 when the PVSC became a legal entity, most municipality within the PVSC's jurisdiction developed a sewer system which discharged directly to the Passaic River through a discharge line ending in an outfall on or near the River's banks. Between 1912 and 1924, the PVSC constructed a trunk line which runs approximately along the River and intersected the discharge lines of the municipal lines close to the municipal outfalls along the River. In 1924 the PVSC went into operation and collected the waste, formerly being discharged to the Passaic River, into its trunk line. This trunk line carried the waste from the municipal lines directly to the PVSC's treatment plant at Newark Bay near the mouth of the Passaic River.

8. Some of the sewer lines connected to the PVSC's trunk line were combined sewer systems. In these combined sewer systems, stormwater runoff flowed directly into the municipal sewer lines along with wastewater. When it rained, the volume transported by these combined sewer systems into the PVSC's trunk line would increase dramatically. These increases in the

volume handled by the trunk line often exceeded the capacity of the treatment system and the trunk line to handle the waste material. Unless the waste was bypassed to the River, the sewage in the trunk line would back up into the municipal lines and overflow into points connected to the system, including homes.

9. **Outfalls:** Attached to this Affidavit as Exhibit A is a copy of the first National Pollutant Discharge Elimination System ("NPDES") permit issued to the PVSC. The permit, No. NJ0021016 issued effective February 28, 1975, lists the outfalls from the municipal systems handled by the PVSC. Page 13 of the permit lists the discharge points to the Passaic River owned by the PVSC. Outfalls there numbered 001 and 002 were to handle only treated effluent from the PVSC's treatment plant. The remaining outfalls listed there, numbered 003 to 007, inclusive, carried untreated sewage upstream of the PVSC's treatment plant. The PVSC used these outfalls to bypass sewage and rainwater to the River.

10. The permit, at pages 14 through 19, lists an additional 67 outfalls that carried untreated sewage. The PVSC used these outfalls to bypass sewage and rainwater to the Passaic River or its immediate tributaries.

11. The outfall listed in the 1975 NPDES Permit on page 13 and there numbered 003 was also known as the Yantacaw Street Bypass. This bypass carried all the effluent handled by the PVSC upstream of the junction of the Third River and the Passaic River. This outfall was the largest bypass in the system.

12. The outfall listed in the 1975 NPDES Permit on page 19 and there numbered 074 was also known as the Second River Joint Meeting Sewer. The Second River Joint Meeting Sewer was a mini-trunk line, built by the Second River municipalities, Montclair, Glenridge, Bloomfield and part of Nutley. It connected all of their sewage systems to the PVSC's trunk line. When this Second River Joint Meeting Sewer was bypassed to the River, all of the waste handled by these municipal systems went directly into the River.

13. **Mechanics:** In most instances, the PVSC's trunk line ran below the municipal sewer outfall line. The municipal outfall line was connected to the PVSC's trunk line through a chamber constructed so that gravity would carry waste headed down the municipal line into the trunk line and to the PVSC's treatment plant instead of to the River. However, the remainder of the old municipal line was usually kept as a bypass, if needed. In many places float operated valves were constructed to automatically operate the bypasses during high sewer levels.

14. When I was first employed by the PVSC, most of these connections had inoperable automatic bypass valves. These automatic bypass valves were supposed to have been controlled by the float. As the trunk line became full, the float was supposed to rise in the chamber and, in theory, close a valve on the connection between the municipal sewer and the trunk line. Once this valve was closed, the waste would flow directly along the old outfall directly into the Passaic River. However dirt, rags and sand continually got under the floats keeping them from opening the valves when the sewage level dropped causing by-passing during periods when it was not necessary. Constant maintenance was not sufficient to rectify the problem.

15. Because these automatic bypasses did not operate properly, the floats were disconnected and the flap valve which they formerly controlled was then operated manually with a chain. Thus no bypassing would occur unless it was done manually, or unless the sewage level became so high that it overflowed an adjustable level weir.

16. On the east side of the River, many of the bypass valves were simple weirs. In these weirs, the sewage would fall into the trunk line until the capacity of the trunk line was so full that it backed up to the top of the weir, and then it would overflow the weir directly into the River.

17. The largest bypass, the Yantacaw Bypass had two sets of gates operated by hoists -- one set in the trunk line and one set on the outfall to the Passaic River. Normally, the gate to the trunk line was open and the gate to the Passaic River outfall was closed. To bypass

the trunk line, the Bypass Crew opened the gate to the River and closed the gate to the trunk line. This bypassed all of the sewage in the trunk line upstream of Third River. The second largest line bypass, the Second River Joint Meeting Sewer, similarly had two sets of gates that were operated with hoists. This one bypassed all the sewage in the Joint Meeting Sewer.

18. **Incidents Requiring Bypasses:** The PVSC bypassed waste to the River in the following instances:

- a. when it rained and the volume of flow in the system threatened to exceed capacity;
- b. when it was necessary to reduce the flow in order to repair sewer lines;
- c. when discharges occurred accidentally, as when the flap valve closed because the chain had broken or come unattached; and
- d. when a breakdown occurred at the pumping station or treatment plant and it was necessary to limit flow for repairs or to prevent further damage during repairs.

19. **Rain:** Where the rain increased the volume of flow in the trunk line, the PVSC would bypass waste directly to the River in varying quantities in order to control the flow of waste in the trunk line and at the treatment plant. As Chief Engineer, I was in charge of directing the Bypass Crew operations. The Bypass Crew was on call 24 hours a day.

20. Only the amount of waste necessary to protect the system was bypassed. The smaller bypasses in the City of Newark were usually employed first. The Second River Meeting Sewer was the "next-to-the-last resort." This line was easy to bypass because the gates were in the line maintenance yard at Second River owned by the PVSC so they were readily accessible to PVSC personnel. Finally, the "last resort" was the Yantacaw Bypass. Bypassing this system as referred to as "having to throw Yantacaw," as in "the rain was so bad we had to throw Yantacaw."

21. As I discuss in greater detail below, the PVSC kept accurate records of the amount of waste bypassed to the River. I have not reviewed those records in preparing this Affidavit. I have, however, reviewed the charts showing rainfall, River flow and input to the PVSC treatment plant contained in the Annual Reports for the Years 1972, 1973, 1974, 1975 and 1976. I have attached these charts to this Affidavit as Exhibit B-1 through B-10. These charts illustrate that on several occasions each year, the River flow rose significantly, but the volume received at the treatment plant fell below the average daily flow for the year. I believe that in these instances the Yantacaw Street Bypass was thrown, and the waste it carried was bypassed to the River.

22. **Repairs:** The PVSC also bypassed sewage into the Passaic River to repair the sewage lines. For example, as reported at page 55 of the Annual Report for the Year 1971, floods in August of 1971 broke the Second River Joint Meeting Sewer. A 400-foot section of the Second River Joint Meeting Sewer had to be replaced because of this break. However, because of the break, approximately 40 million gallons of waste was discharged to the river from the Second River Joint Meeting Sewer per day between August 28 to September 3, 1971. A large amount of sewage was also bypassed to the Passaic River during the repair of a major crack in the trunk line under McCarter Highway during the month of March 1974. Details of this repair and its problems are presented on page 21 of the 1974 Annual Report.

23. **Records:** The PVSC maintained accurate records of the number of bypasses and the estimated volume of bypassed material. The PVSC used these records to calculate the fees to be charged to the municipalities using the PVSC's system.

24. Each municipality using the PVSC's facilities paid a percentage of the operating expenses of the PVSC. The percentage was based on the ratio between the volume of the municipality's waste and the total waste handled by the PVSC.

25. The volume of waste contributed by each municipality was measured by flow meters. Some by direct measurement as the waste went into the PVSC line and some, such as

Newark, indirectly by subtraction of meters in and along the trunk line. The billable flow for each municipality was calculated weekly using readings from these flow meters along the trunk line. Subtracting the volume of an upstream meter from a downstream meter gave the volume received by the trunk line between those meters. Each municipality paid for its percentage contribution of the total sewage contributed to the PVSC system.

26. If the flow was bypassed to the River because of high volume in the trunk line between two meters, the flow metered in the bypassed area would be reduced. This reduced flow would result in a lower billing ratio for the municipality in the by passed area. This lower billing ratio would confer an unjustified economic benefit on the affected municipality.

27. To correct for this unjustified benefit, a formula was developed that computed a weighted average flow for use during periods when bypasses artificially reduced actual flow. Under this formula, the PVSC calculated an average flow for each municipality based on flow rates during periods when no waste was bypassed. This average flow rate was used to calculate the amount of sewage bypassed in some areas. In other areas the flow charts were modified to add back the estimated amount bypassed. These calculated and estimated flows were added to the municipality whose flow was affected by the bypassing. Using these flows a percentage was calculated for billing purposes and used instead of the unfair results if this was not done.

28. The PVSC kept records of when waste was bypassed so that it could determine when the flow in any municipality had been artificially reduced. These records showed the bypass used, and the amount of time the bypass was open.

29. **What Waste Was Bypassed:** I have not reviewed PVSC's records of the volumes of waste bypassed in preparing this Affidavit. Except as I have expressly stated, I have not estimated the volume of waste bypassed. However, the practice of bypassing was so necessary and frequent that I conclude that the wastestream of every entity connected to a municipal sewer system serviced by the PVSC was bypassed untreated to the Passaic River at some time or another.

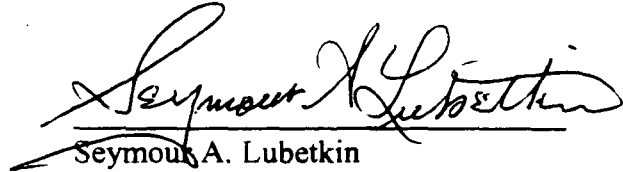
30. The various waste sources commingled in the various municipal sewers and these combined wastes commingled in the trunk line. If a main bypass, such as Yantacaw or Second River was opened, all the waste upstream from that point went into the River. Thus when Yantacaw was opened, the waste from Paterson, Passaic, Clifton, Garfield and many other municipalities upstream of Third River, went into the River. When Second River was bypassed the sewage from Monclair, Orange, Glen Ridge, Bloomfield, and East Orange went to the River. Other bypasses discharged waste from various sections of municipalities. Therefore, opening a bypass in Newark bypassed waste from all tributary industries located in that section.

31. Except as expressly noted here, I have not had an opportunity to review records to identify the entities, especially industry, connected to the municipal sewer systems serviced by the PVSC whose waste was bypassed untreated to the Passaic River.

32. The Annual Reports for the years 1971, 1972, 1973, 1974, 1975 and 1976 contain discussion of discharges to the Passaic River that were found to be polluting. These discharges are identified in the Reports by the name and address of the generator. These are in addition to the bypass discharges discussed in this affidavit. For example, the Annual Report for the Year 1971 at page 118 mentions a green florescent dye discharged into the storm sewer from Thomasset Colors at 120 Lister Avenue in Newark. Most of the parties identified in these Annual Reports, like Thomasset Colors, were also connected municipal sewer systems serviced by the PVSC but may have had direct lines to the River or to a storm sewer. Although these lines were only to be used for clean water discharges, waste discharges did occur.

33. In addition, in 1972, the PVSC conducted an Industrial Waste Survey of industries within its service area. I have attached to this Affidavit as Exhibit C a copy of the letter and questionnaire that was sent to approximately 3000 industries by the PVSC in 1972. By the time I wrote the Annual Report to the Commissioners for 1972, 277 industries had completed and returned these questionnaires. The PVSC subsequently sent and received more completed questionnaires. These completed questionnaires identify industries whose waste was

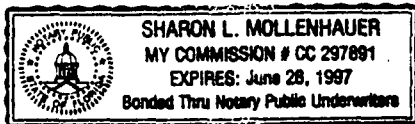
discharged into municipal systems serviced by PVSC and whose waste is sometimes bypassed to the Passaic River as a result of the practice I have described in this Affidavit.

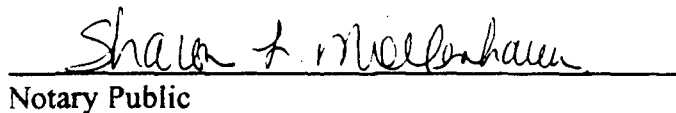

Seymour A. Lubetkin

STATE OF FLORIDA §
COUNTY OF Palm Beach §

Before me, Seymour A. Lubetkin, a notary public, on this day personally appeared Seymour A. Lubetkin, known to me (or proved to me on the oath of Seymour A. Lubetkin) to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this 6th day of January, 1994.




Notary Public

NOTARY ACKNOWLEDGEMENT

STATE OF Florida
COUNTY OF Miami Dade City

The foregoing instrument, Affidavit By Seymour A. Lubetkin
was acknowledged before me this 6th day of January
1994 by Seymour A. Lubetkin

☐ Who is personally known to me or
☒ Who has produced Driver's License 132-781-23-105 exp 14 as identification, :

who ☐ did ☒ did not take an oath,

Sharon L. Mollenhauer
Acknowledger (Signature)

Sharon L. Mollenhauer
Acknowledger (Printed)

Title: SSA

AFFIDAVIT OF SEYMOUR A. LUBETKIN

INDEX OF EXHIBITS

<u>Exhibit</u>	<u>Description</u>
A	National Pollutant Discharge Elimination System Permit to Discharge Permit No. NJ0021016 Issued to Passaic Valley Sewerage Commission Effective 2/28/75 - 6/30/77
B	Charts: Sewage Flow and River Flow - PVSC Annual Reports
B1-B2	Annual Report to the Passaic Valley Sewerage Commission for the Year 1972, prepared by Chief Engineer S.A. Lubetkin, pgs. 163-164
B3-B4	Annual Report to the Passaic Valley Sewerage Commission for the Year 1973, prepared by Chief Engineer S.A. Lubetkin, pgs. 48-49
B5-B6	Annual Report to the Passaic Valley Sewerage Commission for the Year 1974, prepared by Chief Engineer S.A. Lubetkin, pgs. 82-83
B7-B8	Annual Report to the Passaic Valley Sewerage Commission for the Year 1975, prepared by Chief Engineer S.A. Lubetkin, pgs. 20-21
B9-B10	Annual Report to the Passaic Valley Sewerage Commission for the Year 1976, prepared by Chief Engineer S.A. Lubetkin, pgs. 16-17
C	Waste Effluent Survey Excerpt from Annual Report to the Passaic Valley Sewerage Commission for the Year 1972, prepared by Chief Engineer S.A. Lubetkin, pgs. 38-43

Permit No.: NJ0021016

Name of Permittee:

Passaic Valley Sewerage Commission

Effective Date: February 28, 1975

Expiration Date: June 30, 1977

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
PERMIT TO DISCHARGE

In reference to the application received from the above-mentioned permittee for a permit authorizing the discharge of pollutants in compliance with the provisions of the Federal Water Pollution Control Act, as amended by the Federal Water Pollution Control Act Amendments of 1972, P. L. 92-500, October 18, 1972 (33 U. S. C. §§1251-1376) (hereinafter referred to as "the Act"),

Passaic Valley Sewerage Commissioners (P. V. S. C.)

(hereinafter referred to as "the Permittee")

is authorized by the Regional Administrator, Region II, U. S. Environmental Protection Agency, to discharge from:

the P. V. S. C. Sewage Treatment Plant, 600 Wilson Avenue, Newark, New Jersey, and other locations noted herein

to receiving waters named Upper New York Bay, Third River, Newark Bay, Passaic River, and other receiving waters noted herein in accordance with the following conditions.

A. GENERAL CONDITIONS

1. All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant more frequently than, or at a level in excess of, that identified and authorized by this permit shall constitute a violation of the terms and conditions of this permit. Such a violation may result in the imposition of civil and/or criminal penalties as provided for in Section 309 of the Act. Facility modifications, additions, and/or expansions that increase the plant capacity must be reported to the the permitting authority and this permit then modified or reissued to reflect such changes. Any anticipated change in the facility discharge, including any new significant industrial discharge or significant changes in the quantity or quality of existing industrial discharges to the treatment system that will result in significant new or increased discharges of pollutants must be reported to the Regional Administrator. Modifications to the permit may then be made to reflect any necessary changes in permit conditions, including any necessary effluent limitations for any pollutants not identified and limited herein. (In no case are any new connections, increased flows, or significant changes in influent quality permitted that will cause violation of the effluent limitations specified herein.
2. After notice and opportunity for a hearing, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 - a. violation of any terms or conditions of this permit;
 - b. obtaining this permit by misrepresentation or failure to disclose fully all relevant facts; or,
 - c. a change in any condition that required either a temporary or permanent reduction or elimination of the permitted discharge.
3. Notwithstanding 2 above, if a toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is established under Section 307(a) of the Act for a toxic pollutant which is present in the discharge authorized herein and such standard or prohibition is more stringent than any limitation upon such pollutant in this permit, this permit shall be revised or modified in accordance with the toxic effluent standard or prohibition and the permittee shall be notified.
4. The permittee shall allow the head of the State water pollution control agency, the Regional Administrator, and/or their authorized representatives, upon the presentation of credentials:

- a. to enter upon the permittee's premises where an effluent source is located or in which any records are required to be kept under the terms and conditions of this permit;
 - b. to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit;
 - c. to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
 - d. to sample at reasonable times any discharge of pollutants;
 - e. to inspect the operation of the treatment facilities.
5. The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of Federal, State, or local laws or regulations; nor does it obviate the necessity of obtaining State or local assent required by law for the discharge authorized.
6. This permit does not authorize nor approve the construction of any onshore or offshore physical structures of facilities or the undertaking of any work in any navigable waters.
7. Except for data determined to be confidential under Section 308 of the Act, all monitoring reports required by this permit shall be available for public inspection at the offices of the head of the State water pollution control agency and the Regional Administrator. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Section 309 of the Act.
8. The diversion or bypass of any discharge from the treatment works by the permittee is prohibited, except: (1) where unavoidable to prevent loss of life or severe property damage; or (2) where excessive storm drainage or runoff would damage any facilities necessary for compliance with the terms and conditions of this permit. The permittee shall notify the Regional Administrator in writing within 72 hours of each diversion or bypass in accordance with the procedure specified above for reporting non-compliance. Within 30 days after such incident the permittee shall submit to EPA for approval a plan to prevent recurrence of such incidents. Normal operation of overflows and bypasses (listed in Section C-1) should not be reported under the requirements of this condition. The notification and plan herein required apply only to discharges resulting from unusual situations such as breakdowns, power failures, and bypasses occurring during dry weather periods. A summary description of discharges from bypass points should be submitted with the permittee's quarterly self-monitoring reports.

9. If for any reason the permittee does not comply with or will be unable to comply with any effluent limitation (treated effluent discharges) specified in this permit, or should any unusual or extraordinary discharge of wastes occur from the facilities herein permitted, the permittee shall immediately notify the Regional Administrator and appropriate State agency by telephone and provide the same authorities with the following information in writing within five days of such notification:
 - a. A description of the non-complying discharge including its impact upon the receiving waters.
 - b. Cause of non-compliance.
 - c. Anticipated time the condition of non-compliance is expected to continue, or if such condition has been corrected, the duration of the period of non-compliance.
 - d. Steps taken by the permittee to reduce and eliminate the non-complying discharge.
 - e. Steps to be taken by the permittee to prevent recurrence of the condition of non-compliance.
10. Permittee shall take all reasonable steps to minimize any adverse impact to navigable waters resulting from non-compliance with any effluent limitation specified in this permit. The permittee will also provide accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying discharge.
11. Except as provided in permit condition 8 on bypassing, nothing in this permit shall be construed to relieve the permittee from civil or criminal penalties for non-compliance.
12. Nothing in this permit shall be construed to preclude the institution of any legal action nor relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Act.
13. In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit by letter, a copy of which shall be forwarded to the Regional Administrator and the State water pollution control agency.

4. The provisions of this permit are severable, and if any provision of this permit, or the application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.
15. The permittee shall require the municipalities using the PVSC treatment works to report the following conditions to the permittee; the permittee shall then provide notice of the following to the Regional Administrator:
 - a. any new introduction of pollutants into such treatment works from a source which would be a new source as defined in section 306 of the Act if such source were discharging pollutants;
 - b. any new introduction of pollutants which exceeds 10,000 gallons on any 1 day into such treatment works from a source which would be subject to section 301 of the Act if such source were discharging pollutants; and,
 - c. any substantial change in volume or character of pollutants being introduced into such treatment works by a source introducing pollutants into such works at the time of issuance of the permit.

Such notice shall include information on the quality and quantity of effluent to be introduced into such treatment works; and an anticipated impact of such change in the quantity or quality of effluent to be discharged from such publicly owned treatment works.

16. The permittee shall require any industrial user of such treatment works to comply with the requirements of section 204(b), 307, and 308 of the Act. For compliance with section 204(b) of the Act, the permittee shall comply with Special Condition #3 of Federal Construction Grant No. C-34-369, and shall establish a system of user charges and industrial cost recovery in accordance with proposed regulations amending 40 CFR, Part 35, published in the Federal Register dated May 22, 1973, or any subsequent revisions.

For compliance with section 307 of the Act, the permittee shall meet the data collection, and other requirements of section C-2, "Schedule of Compliance for Industrial Discharge Information" in this permit.

7. The permittee shall require any industrial user of storm sewers owned by the PVSC to comply with the requirement of section 308 of the Act.
18. The United States Army Corps of Engineers conducts maintenance dredging of navigable waters and their tributaries pursuant to certain federal statutes. The permittee should be aware of its possible responsibilities under the maintenance dredging program. Under these laws, any person, firm or other entity discharging suspended solids into a navigable waterway of the United States, or tributary thereof, which contribute to the necessity for maintenance dredging of that waterway may be required to participate in the maintenance dredging program.

B. REQUIRED EFFLUENT LIMITATIONS AND MONITORING AND OPERATIONAL REQUIREMENTS

1.A. REQUIRED EFFLUENT LIMITATIONS

During the period beginning on the effective date of this permit and lasting until the date of expiration of this permit, discharges shall be limited and monitored by the permittee as specified below:

- a. A significant removal of settleable solids shall be achieved.
- b. See Table I.
- c. The permittee shall act to significantly reduce the concentration of floating solids prior to discharge and, except as specifically authorized in this permit, the permittee shall not discharge visible foam.
- d. The effluent values for pH shall remain within the limits of 6.0 to 9.0.
- e. From information supplied by the permittee, the design average daily flow of 225 MGD is regularly being exceeded. The preceding effluent limitations will be the determining factors in judging if this facility is adequately treating its wastewater.

1.B. ADDITIONAL EFFLUENT LIMITATION

Starting on May 15, 1975,^{*} the chlorination facilities shall be operated continuously year round. A chlorine residual concentration of not less than 0.5 mg/l shall be maintained in the effluent at all times unless the permittee demonstrates compliance with the following:

The geometric mean of the fecal coliform bacteria values for effluent samples collected in a period of 30 consecutive days shall not exceed 200 per 100 milliliters. The geometric mean of these values for effluent samples collected in a period of seven consecutive days shall not exceed 400 per 100 milliliters.

* Subject to change to an earlier date if so determined by the New Jersey Department of Environmental Protection after conclusion of their administrative hearing procedure presently underway.

2. FACILITY OPERATION AND QUALITY CONTROL

All waste collection, control, treatment and disposal facilities shall be operated in a manner consistent with the following:

- a. At all times, all facilities shall be operated as efficiently as possible and in a manner which will minimize upsets and discharges of excessive pollutants.
- b. The permittee shall provide an adequate operating staff which is duly qualified to carry out the operation, maintenance and testing functions required to insure compliance with the conditions of this permit.
- c. Routine maintenance of treatment facilities that results in degradation of effluent quality shall be scheduled during non-critical water quality periods and shall be carried out in a manner approved by the permitting authority.
- d. Under no circumstances shall the permittee allow introduction of the following wastes into the waste treatment system:
 - aa. Wastes which create a fire or explosion hazard in the treatment works.
 - bb. Wastes which will cause corrosive structural damage to treatment works.
 - cc. Solid or viscous substances in amounts which cause obstructions to the flow in sewers or interference with the proper operation of the treatment works.
 - dd. Wastewaters, at a flow rate and/or pollutant discharge rate which is excessive over relatively short time periods so as to cause a loss of treatment efficiency. This condition does not constitute an exception to condition C-4(A)(1)(2).

3. SELF-MONITORING AND REPORTING REQUIREMENTS

- a. The permittee shall effectively monitor the operation and efficiency of all treatment and control facilities and the quantity and quality of the treated discharge. Monitoring data required by this permit shall be summarized on an average calendar month basis. Individual reports are to be submitted on a quarterly basis. Duplicate original copies of the discharge monitoring report form (EPA Form 3320-1), properly completed and signed by the permittee, must be submitted within 28 days after the end of each report period to the

Regional Administrator and the State Agency at the following addresses:

U. S. Environmental Protection Agency
Region II
Status of Compliance Branch
26 Federal Plaza
New York, New York 10007

Director
Division of Water Resources
New Jersey Department of
Environmental Protection
Labor & Industry Building
P. O. Box 1390
Trenton, New Jersey 08625

Quarterly reports will be required for periods beginning on the first day of the first month following the issuance of this permit. The data collected and submitted shall include the following parameters and testing frequencies:

See Table I

Samples and measurements of the effluent taken to achieve compliance with the monitoring requirements specified above shall be taken at the point of combined flow into the outfall sewer.

Samples and measurement of the influent wastewater taken to meet the monitoring requirements specified above shall be taken at the point of plant inflow.

b. Sampling and Analysis Methods

Other measurements of oxygen demand can be substituted for Biochemical Oxygen Demand (BOD) where the permittee can demonstrate long-term correlation of the method with BOD values. Substitution of such measurements must receive prior approval of the permitting authority.

The analytical and sampling methods used shall conform to the latest edition of the reference methods listed below. (These are interim references to be replaced by Sec. 304(g) guidelines when available.) However, different but equivalent methods are allowable if they receive the prior written approval of the permitting authority.

1. STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATERS, 13th edition, 1971, American Public Health Association, New York, New York 10019.
2. A. S. T. M. STANDARDS, PART 23, WATER; ATMOSPHERIC ANALYSIS, 1972, American Society for Testing and Materials, Philadelphia, Pa. 19103.
3. METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, April 1971, U.S. Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 45202.

The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals to insure accuracy of measurements.

4. RECORDING

The permittee shall record for all samples the date and time of sampling, the sampling method used, the date analyses were performed, the identity of the analysts, and the results of all required analyses and measurements.

All sampling and analytical records mentioned in the preceding paragraph shall be retained for a minimum of three years. The permittee shall also retain all original recordings from any continuous monitoring instrumentation, and any calibration and maintenance records, for a minimum of three years. These periods will be extended during the course of any unresolved litigation, or when so requested by the Regional Administrator.

5. SOLIDS DISPOSAL

Collected screenings, slurries, sludges, and other solids shall be disposed of in such a manner as to prevent entry of those wastes (or runoff from the wastes) into navigable waters or their tributaries.

The permittee shall cooperate with the U.S. Environmental Protection Agency in the development of a sludge management program aimed at eliminating ocean disposal of sludge, and shall cooperate with other operating agencies in exploring solutions to sludge management and disposal problems.

TABLE I

SELF-MONITORING REQUIREMENTS (Discharge 001) 1/

<u>Parameter</u>	<u>Minimum Monitoring Requirements</u>	
	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow, mgd	Continuous	N/A
mg/l	Daily	24-hr composite
lbs/day*	-	-
leable Solids, ml/l	6 per day	Grab
nded Solids, mg/l	Daily	24-hr composite
nded Solids, lbs/day*	-	-
idual Chlorine, mg/l <u>2/</u>	6 per day	Grab
Coliform, N per 100 ml <u>2/</u>	Daily	Grab
	6 per day	Grab

Except where indicated influent and effluent measurement and testing are required.

Only effluent testing required.

To be calculated using actual flow and actual testing results for parameters noted.

SECTION C

Special Conditions and Schedules for Compliance with
Permit Limitations

Contents

- C-1. Descriptive Listing of Discharge Points
- C-2. Industrial Discharge Compliance Schedule
- C-3. Sewer System Evaluation and Rehabilitation Compliance Schedule
- C-4. Wet Weather Flow Study Compliance Schedule
- C-5. Facilities Upgrading Compliance Schedule

Compliance Reporting Requirements (1)

The Permittee shall comply with the following schedules and shall report to the Regional Administrator and the State Agency within 14 days following each date on the schedules detailing its compliance or non-compliance ⁽²⁾ with the schedule date and requirements.

C-1 Descriptive Listing of Discharge Points

A. Discharge Points Owned by the Permittee

Discharge Serial Number
and Receiving Water

Discharge Description and
Location (approximate U.S.G.S. Cor.)

#001
Upper New York Bay

Outfall for treated effluent,
extends 3200 feet from shore to
a depth of 40-60 feet.
(40°42'45"N, 74°03'42" W)

#002
Newark Bay

Newark Bay Bypass for treated
effluent. (40°42'45"N, 74°07'24"W)

#003
Confluence of Third
River and Passaic

Yantacaw St. Bypass, Clifton
(40°49'17"N, 74°07'53" W)

#004
Confluence of Third River
and Passaic River

Yantacaw Pumping Station Overflow,
Clifton (40°49'16" N, 74°07'55" W)

#005
Passaic River

Wallington Pump Station Bypass,
Wallington. (40°51'26" N, 74°07'9"W)

#006
Passaic River

North Arlington Branch Overflow
North Arlington (40°47'12"N
74°07'51"W)

#007
Passaic River

Hudson St. Overflow, Paterson
(40°55'27" N, 74°10'7" W)

- B. Discharge Points Not Owned by the Permittee which work in conjunction with the Permittee's System and which are to be included as part of Section C-4 ,wet weather flow study.

Discharge Serial Number
and Receiving Water

Discharge Description and
Location (approximate U.S.G.S. Cor.)

#008
Passaic River

East Newark, Central Avenue
Overflow
(40°35'03" N, 74°09'55" W)

#009
Passaic River

Garfield, Garden State Bypass
(40°53'10" N, 74°07'44" W)

#010
Passaic River

New Street, Harrison Overflow
(40°44'49"N, 74°09'56" W)

#011
Passaic River

Cleveland Street, Harrison Overflow
(40°44'45"N, 74°09'56" W)

#012
Passaic River

Harrison Avenue, Harrison Overflow
(40°44'42" N, 74°09'56" W)

#013
Passaic River

Dey Street, Harrison Overflow
(40°44'33" N, 74°09'53" W)

#014
Passaic River

Middlesex Street, Harrison Overflow
(40°44'33" N, 74°09'53" W)

#015
Passaic River

Bergan Street, Harrison Overflow
(40°44'25" N, 74°09'49" W)

#016
Passaic River

Worthington Ave., Harrison Overflow
(40°44'21" N, 74°08'41" W)

#017
Passaic River

Stewart Ave., Kearny Overflow
(40°46'46" N, 74°07'55" W)

#018
Passaic River

Washington Ave., Kearny Overflow
(40°46'37" N, 74°08'00" W)

#019
Passaic River

Bergen Ave., Kearny Overflow
(40°45'43" N, 74°09'40" W)

#020
Passaic River

Nairn Ave., Kearny Overflow
(40°45'33" N, 74°09'46" W)

#021
Passaic River

Marshall Street, Kearny Overflow
(40°45'24" N, 74°09'51" W)

#022
Passaic River

Johnston Ave., Kearny Overflow
(40°45'16" N, 74°09'52" W)

#023
Franks Creek
thence to Passaic River

Ivy Street, Franks Creek Overflow,
Kearny
(40°45'34" N, 74°08'30" W)

#024
Franks Creek
thence to Passaic River

Bergen St., Franks Creek Overflow,
Kearny
(40°45'09" N, 74°08'14" W)

#025
Franks Creek
thence to Passaic River

Tappan St., Franks Creek Overflow,
Kearny
(40°45'01" N, 74°08'12" W)

#026
Franks Creek, a tributary
of the Passaic River

Duke St., Franks Creek Overflow,
Kearny
(40°44'58" N, 74°08'10" W)

#027
Passaic River

Lodj force main bypass, Passaic
(45°51' 25" N, 74°07'13" W)

#028
Passaic River

Verona Ave., Newark Bypass
(40°46'35" N, 74°09'07" W)

#029
Passaic River

Delavan Ave., Newark Bypass
(40°46'11" N, 74°09'29" W)

*

#031
Passaic River

Third Ave., Newark Bypass
(40°45'28" N, 74°09'55" W)

#032
Passaic River

Fourth Ave., Newark Bypass
(40°45'22" N, 74°09'56" W)

#033
Passaic River

Clay Street, Newark Bypass
(40°45'03" N, 74°09'58" W)

#034
Passaic River

Orange Street, Newark Bypass
(40°44'47" N, 74°10'01" W)

#035
Passaic River

Bridge Street, Newark Bypass
(40°44'41" N, 74°10'00" W)

#036
Passaic River

Rector Street, Newark Bypass
(40°44'29" N, 74°09'56" W)

#037
Passaic River

Saybrook Place, Newark Bypass
(40°44'26" N, 74°09'44" W)

#038
Passaic River

City Dock, Newark Bypass
(40°44'07" N, 74°09'44" W)

#039
Passaic River

Jackson Street, Newark Bypass
(40°43'59" N, 74°09'19" W)

#040
Passaic River

Polk Street, Newark Bypass
(40°43'59" N, 74°09'14" W)

#041
Passaic River

Freeman Street, Newark Bypass
(40°44'02" N, 74°08'46" W)

#042
Passaic River

Curtis Pl., Paterson Overflow
(40°55'11" N, 74°10'34" W)

#043
Passaic River

Mulberry St., Paterson Overflow
(40°55'12" N, 74°10'33" W)

#044
Passaic River

West Broadway, Paterson Overflow
(40°55'14" N, 74°10'31" W)

#045
Passaic River

Bank St., Paterson Overflow
(40°55'18" N, 74°10'27" W)

#046
Passaic River

Bridge St., Paterson Overflow
(40°55'23" N, 74°10'14" W)

#047
Passaic River

Montgomery St., Paterson Overflow
(40°55'29" N, 74°10'03" W)

#048
Passaic River

Straight St., Paterson Overflow
(40°55'33" N, 74°09'59" W)

#049
Passaic River

Franklin St., Paterson Overflow
(40°55'36" N, 74°09'57" W)

#050
Passaic River

Keepe St., Paterson Overflow
(40°55'37" N, 74°09'56" W)

#051
Passaic River

Warren St., Paterson Overflow
(40°55'40" N, 74°09'55" W)

#052
Passaic River

Sixth Avenue, Paterson Overflow
(40°56'03" N, 74°10'01" W)

#053
Passaic River

East 5th St. and Fifth Ave., Paterson
Overflow
(40°56'11" N, 74°09'48" W)

#054
Passaic River

East 11th St., Paterson Overflow
(40°56'13" N, 74°09'26" W)

#055
Passaic River

Fourth Ave., Paterson Overflow
(40°56'14" N, 74°09'22" W)

#056
Passaic River

S.U.M. Park, Paterson Overflow
(40°55'05" N, 74°10'45" W)

#057
Passaic River

North West St., Paterson Overflow
(40°55'17" N, 74°10'33" W)

#058
Passaic River

Arch Street, Paterson Overflow
(40°55'24" N, 74°10'14" W)

#059
Passaic River

Jefferson St., Paterson Overflow
(40°55'26" N, 74°10'11" W)

#050
Passaic River

Stout St., Paterson Overflow
(40°55'29" N, 74°10'09" W)

#061
Passaic River

North Straight St., Paterson Overflow
(40°55'35" N, 74°10'00" W)

#062
Passaic River

Bergen St., Paterson Overflow
(40°55'44" N, 74°09'57" W)

#063
Passaic River

Short St., Paterson Overflow
(40°55'53" N, 74°10'05" W)

#064
Passaic River

Second Ave., Paterson Overflow
(40°56'18" N, 74°08'35" W)

#065
Passaic River

Third Ave., Paterson Overflow
(40°56'10" N, 74°08'30" W)

#066
Passaic River

33 Street and Tenth Ave., Paterson
Overflow
(40°55'25" N, 74°08'28" W)

#067
Passaic River

20th Ave., Paterson Overflow
(40°54'21" N, 74°07'59" W)

#068
Passaic River

Market Street, Paterson Overflow
(40°54'08" N, 74°08'05" W)

#069
Passaic

Passaic Tail Race, Passaic Bypass
(40°51'27" N, 74°07'13" W)

#070
Passaic River

Dundee Island Lateral, Passaic
Overflow
(40°51'52" N, 74°06'40" W)

#071
Passaic River

Woodward Ave., Rutherford
Overflow
(40°49'52" N, 74°07'15" W)

#072
Passaic River

Pierrepont Ave., Rutherford
Overflow
(40°49'40" N, 74°07'18" W)

#073
Passaic River

Rutherford Ave., Rutherford Overflow
(40°49'20" N, 74°07'25" W)

#074
Passaic River

Second River Joint Meeting, Newark
Bypass
(40°46'36" N, 74°09'05" W)

Addendum

#030
Passaic River

Herbert Place, Newark Bypass
(40°45'55" N, 74°09'35" W)

C-2. SCHEDULE OF COMPLIANCE FOR INDUSTRIAL DISCHARGE INFORMATION

It is apparent that other pollutants attributable to inputs from major contributing industries using the municipal system are also present in the facility's discharge. At such time as sufficient information becomes available to establish limitations for such pollutants, this permit may be revised to specify effluent limitations for any or all of such other pollutants in accordance with best practicable industrial technology requirements or water quality standards.

- A. Not later than August 31, 1975, the permittee shall initiate whatever actions are needed to enable the permittee to enforce all pre-treatment requirements necessary to insure compliance with the terms and conditions of this permit as well as to insure compliance by all major contributing industries with the pre-treatment standards and any other applicable regulations promulgated pursuant to Sections 307 and 308 of the Act.

By August 31, 1975, the permittee shall notify the Regional Administrator and State Agency of the actions it intends to take to comply with the above requirement.

The permittee shall require each major contributing industry to submit to the permittee periodic notice (at intervals not to exceed 9 months) regarding specific actions taken to achieve full compliance with the requirements of Section 307. On the last day of the months of March and September, the permittee shall submit to the permit issuing authority a report summarizing the progress of all known major contributing industries subject to the requirements of Section 307 towards achieving full compliance with such requirements. Such reports shall include, at least, the following information:

- (1) A narrative summary of actions taken by the permittee to develop, promulgate, and enforce its own industrial waste regulations, as well as its own legislation and thereby ensure that all major contributing industries comply with the requirements of Section 307.
- (2) The number of major contributing industries using the treatment works, divided into SIC group categories.
- (3) The number of major contributing industries known to be in full compliance with the requirements of Section 307, or not subject to these requirements; e.g., discharge only compatible pollutants.

- (4) A list identifying by name those major contributing industries known to be presently in violation of the requirements of Section 307.

These semi-annual reports must be filed with the permitting authority by March 31 and September 30 of each year until compliance is achieved. Submission would be required again only if a major contributing industry reverts to violating the requirements of Section 307.

- B. Immediately upon issuance of this permit, the permittee shall establish and implement a procedure to obtain from all major contributing industries specific information on the quality and quantity of effluents introduced by such industrial users. The following information shall be reported to the permitting agency on a semi-annual basis beginning March 31, 1975; semi-annual reports reflecting no change from the previous reporting period may simply relate this fact without submitting repetitive data. These reports should follow the format outlined in the Appendix to this compliance schedule. All required data must be submitted before September 30, 1976.

It shall be the responsibility of the Permittee to compute and include in the semi-annual reports the "best practicable" effluent limitations and to determine and implement necessary pre-treatment requirements (as provided for in 40 CFR Part 128) for the major contributing industries. In computing the allowable industrial inputs, the permittee shall utilize the applicable industrial effluent guidelines as published in the Federal Register.* In the first semi-annual report (due March 31, 1975), the permittee shall propose a schedule for determining the required pre-treatment information and, after approval by the permitting authority, shall implement the schedule. After receipt of the pre-treatment data, this permit may be amended to reflect the PVSC'S effluent requirements for incompatible pollutants..

NOTE: A major contributing industry is one that: (a) has a flow of 50,000 gallons or more per average workday; (b) has a flow greater than 5% of the flow carried by the municipal system receiving the waste; (c) has in its waste a toxic pollutant in toxic amounts as defined in standards issued under Section 307 (a) of the Act; or (d) has significant impact, either singly or in combination with other contributing industries, on the treatment works or the quality of its effluent.

* If the permittee is unable to compute effluent limitations for any industrial source category, the permittee shall so notify the permit issuing authority. After such notification, the permit issuing authority will either assume the responsibility for such calculations or will assist the permittee in computing effluent limitations for that industrial source category.

APPENDIX TO INDUSTRIAL COMPLIANCE SCHEDULE

To comply with the industrial discharge reporting requirements outlined above, the following procedure should be utilized for each major contributing industry:

Using the following format, a description of each major contributing industry discharging to the municipal system should be prepared. A separate set of six questions should be completed for each major industrial user.

See "Section IV" of "Standard Form A" (attached).

It is the responsibility of the permittee to obtain the required information for all major industrial contributors to his facility, including those contributing via another system. Actual data should be provided, if available; otherwise the best estimate should be provided and the response marked "interim." If certain of the requested information does not apply, it should be marked "N.A."

Specific instructions follow: (Question numbers refer to those on the sheet entitled "Standard Form A - Municipal".)

QUESTION 1 - MAJOR CONTRIBUTING FACILITY: - Give the name and address that designates the location of the industrial facility.

QUESTION 2 - PRIMARY STANDARD INDUSTRIAL CLASSIFICATION CODE: - Using four-digit standard industrial classification (SIC) codes, indicate the type of industrial facility that is discharging into the municipal system. Standard industrial classification (SIC) code numbers and descriptions may be found in the 1972 edition of the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, which is available from the Government Printing Office, Washington, D.C. Do not use previous editions of the manual. Copies are also available for examination at State water pollution control offices, Regional Offices of the U.S. Environmental Protection Agency, and at most public libraries.

QUESTION 3 - PRINCIPAL PRODUCT OR RAW MATERIAL: Specify either the principal product or the principal raw material and the maximum quantity per day produced or consumed. Quantities are to be reported in the units of measurement given in Table B for particular SIC cate-

gories. Enter the letter-number code from the "Code" column in Table B for the units selected under "Units." For SIC categories not listed, use the units of measurements normally used by that industry.

QUESTION 6: Indicate the characteristics of the wastewater from the contributing industry in terms of parameters that will adequately identify the waste, such as BOD, COD, Cr, Zn, pH units, degrees Fahrenheit, etc. The characteristics should be indicative of the waste stream after any pre-treatment is provided by the industrial facility but prior to entering the municipal system.

In addition to parameter names, report values in units specified in Table A. The first column, "Parameter & Units," indicates the preferred units for reporting data for a given parameter. The second column, "Method," lists the preferred analytical method, if any, for determining the required parameter values. The next three columns, "References," give the page numbers in standard reference works where a detailed description of the recommended analytical technique given under "Method" can be found. These standard references are:

1. STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATERS, 13th edition, 1971, American Public Health Association, New York, New York 10019.
2. A.S.T.M. STANDARDS, PART 23, WATER; ATMOSPHERIC ANALYSIS, 1972, American Society for Testing and Materials, Philadelphia, Pa. 19103.
3. EPA METHODS FOR CHEMICAL ANALYSIS OF WATER AND WASTES, April 1971, Environmental Protection Agency, Water Quality Office, Analytical Quality Control Laboratory, 1014 Broadway, Cincinnati, Ohio 45202.

Copies of these publications are available from the above sources, or for review in the Regional Offices of the U.S. Environmental Protection Agency or the State Water Control Board.

The last column, "Data Reporting Level," indicates that nearest significant figure (digit) to which the data must be reported. For example, the figure X for chloride indicates that chloride data must be reported to the nearest whole milligram per liter. This level should not be confused with "detectable limits"; applicable detection limit information can be obtained from the appropriate reference source.

Additional information obtained through the permittee's "Waste Effluent Survey" description shall be submitted for each major industry. Such additional information should include:

- (1) A brief description of industrial operations.
- (2) The quantity of water used by the industry for the preceding year, classified according to source; i. e., purchased water, well water, river water.
- (3) A description of the date and timespan of samples reported in answer to Question number 6 of "Section IV."
- (4) A description of the industry's flow variation, including hours of discharge and maximum, minimum and average flow rates.

STANDARD FORM A-MUNICIPAL

SECTION IV. INDUSTRIAL WASTE CONTRIBUTION TO MUNICIPAL SYSTEM Page of

Submit a description of each major industrial facility discharging to the municipal system, using a separate Section IV for each facility description. Indicate the 4 digit Standard Industrial Classification (SIC) Code for the industry, the major product or raw material, the flow (in thousand gallons per day), and the characteristics of the wastewater discharged from the industrial facility into the municipal system. Consult Table III for standard measures of products or raw materials. (see instructions)

1. Major Contributing Facility
(see instructions)

Name

401a

Number & Street

401b

City

401c

County

401d

State

401e

Zip Code

401f

2. Primary Standard Industrial
Classification Code (see
instructions)

402

3. Principal Product or Raw
Material (see instructions)

Product

403a

Quantity

Units (See
Table III)

Raw Material

403b

4. Flow Indicate the volume of water
discharged into the municipal sys-
tem in thousand gallons per day
and whether this discharge is inter-
mittent or continuous.

404a

thousand gallons per day

404b

☐ Intermittent (int) ☐ Continuous (con)5. Pretreatment Provided Indicate if
pretreatment is provided prior to
entering the municipal system

405

☐ Yes☐ No6. Characteristics of Wastewater
(see instructions)

Parameter Name							
Parameter Number	406a						
Value	406b						

C-3. SEWER SYSTEM EVALUATION AND REHABILITATION COMPLIANCE SCHEDULE

- A. The permittee has, in accordance with 40 CFR 35.927, initiated a Sewer System Evaluation and Rehabilitation Program. The permittee shall, by August 31, 1976, submit to both the Regional Administrator and the NJDEP the results of Phase I (Infiltration/Inflow Analysis) of this program.
- B. If it is determined by the results obtained from the Infiltration/Inflow Analysis that the Sewer System Evaluation and Rehabilitation Program is to continue, the permittee shall, within one month of approval of the Analysis (Phase I) Report by the USEPA and the NJDEP, submit a program for Phase II (Field Investigation and Survey), together with a proposed Engineering Contract for said work and an application for a Federal grant for this work. Within two months of approval by the USEPA of this program, contract and a grant, the permittee shall execute the contract and start Phase II of the program.
- C. Upon completion by the permittee of Phase II of the Sewer System Evaluation and Rehabilitation Program and after approval by the Regional Administrator and the NJDEP of the results of Phase II, this permit may be revised to incorporate a compliance schedule for construction or rehabilitation (Phase III) recommended by Phase II.

C-4. WET WEATHER FLOW STUDY COMPLIANCE SCHEDULE

A. Operation of Systems with Combined Sewers

i. General Requirements

1. The permittee shall operate the treatment works, including the treatment plant and total sewer system, to minimize discharge of the pollutants listed in the permit from combined sewer overflows or bypasses.
2. No new sources of stormwater inflow shall be connected to any separate sanitary sewers in the sewer system.

ii. Preliminary Requirements

1. Report on Maximum Treatable Flow Rates

The permittee must report to the Regional Administrator and the State agency by August 31, 1975, the maximum treatable flow rates for the treatment plant or any complete unit process. The maximum treatable flow rates must be at least equal to one of the following:

- a. The maximum hydraulic flow rate for which the treatment plant was designed, or the maximum hydraulic flow rate for which the treatment plant can provide partial treatment.
- b. The maximum flow rate that can be delivered to the plant without causing seriously adverse conditions, such as substantial property damage, in the interceptor and lateral sewer system.

The permittee shall operate the system so as to achieve the maximum treatable flow.

2. In lieu of the above, The permittee may submit a detailed operational plan designed to minimize pollutant discharges from the treatment and sewer system. The permittee must demonstrate that, if implemented, the plan would provide for a lower discharge of pollutants from the system during wet weather than that occurring if the hydraulic flow were treated during wet weather at the limiting flow rate in B.1. above. The treatment plant and sewer system shall be operated in accordance with this plan.

3. The permittee shall also report by February 28, 1977, to the permit issuance authority a proposed method for estimating the number and location of new sewer connections which will be served by combined sewers for the duration of the permit. The permittee shall also report by February 28, 1979, a proposed method for estimating the impact of the additional flows generated by these new sewer connections on the volume of discharges from the combined sewer system. This method shall be used in the development of the operational plan required in Section iii, below.

iii. Operational Plan

An interim operational plan designed to minimize the discharge of pollutants from combined sewer overflows and bypasses must be submitted by the permittee to the Regional Administrator and the State Agency by June 30, 1975. The plan will provide for optimal coordinated operation of the sewage treatment plant and contributing sewer systems. The plan will specifically:

1. Refine the estimate of maximum treatable flow.
2. If applicable, report the number, location, types, and kinds of regulators and their respective operating history, maintenance program, and performance efficiency.
3. Report the calculated or estimated storage capacities of the sewer system upstream from all control devices such as pump stations and regulators, or combined sewer discharges.
4. Provide operational procedures for utilizing at least 80% of the available capacity of interceptors and trunk lines upstream of any control devices such as pump stations, or regulators prior to any discharge from a combined sewer overflow or bypass; or provide, if such storage capacity utilization cannot be achieved with existing control devices, the operational procedures for maximizing the use of storage prior to any combined sewer discharge.
5. Provide a method to determine if the upstream storage capacity was utilized prior to any discharge from the combined sewer system.

6. Analyze the effect on the total volume of combined sewer discharges of new sewer connections anticipated for the duration of the permit. If these additional connections are expected to increase the total volume of discharges for like meteorological conditions, the plan must provide a method for the prevention of this increase by regulation or control of new connections and/or an offsetting of any added flows by such means as sewage and inflow reduction, in-system flow routing, and treatment and enlargement of sewer and treatment capacity.

B. Monitoring of Systems with Combined Sewers

i. General Requirements

Point sources so noted in Section C-1, are overflows resulting when the hydraulic flow capacity of the system has been exceeded.

These discharge points may be utilized for wet weather overflows or bypasses to the extent specified by the approved preliminary report and interim operational plan. For all overflows the permittee is required to take the following actions:

In conjunction with the permittee's Infiltration/Inflow Analysis the permittee shall take measurements at overflow stations and at bypass points to determine overflows due to both infiltration and inflow. Such overflows shall be related to rainfall wherever possible, and time-duration curves shall be developed to establish both peak rates and total quantity overflowed insofar as may be possible. Sampling of such overflows shall be undertaken to determine the quality of the bypassed storm water flows and its effect on the River. The results of such analyses shall be included in the report required August 31, 1976.

(see Condition C-3(A) on Infiltration/Inflow Analysis).

ii. Reporting Results

Included in the report required above, or in a separate report to be submitted by June 30, 1977, the permittee shall make recommendations concerning the alternative plans for corrective action along with recommendations for alleviating and/or treating overflow discharges including estimates of cost for implementing the alternative plans. The alternative strategies to be evaluated shall include, as a minimum:

- a. dual use treatment facilities;

- b. storing and/or treating initial or final sewer system flushes;
- c. storage and subsequent treatment of discharges;
- d. improvements in the sewer system.

C-5 FACILITIES UPGRADING COMPLIANCE SCHEDULE

- A. The permittee shall, before August 1, 1976, complete and submit to both the Regional Administrator and the State Agency, a detailed design report and plans and specifications, together with a Step 3 Grant Application, for the Phase I* modifications to the treatment facilities. 3/ Within one year after approval by the USEPA and the NJSDEP of Phase I, the permittee shall submit a detailed design report and plans and specifications for Phase II* modifications to the treatment facilities. 3/
- B. Construction grant project number C-34-369-02, contracts numbered 480, 481, 484, 485, 487, 494, 491, 496A and 496B, is expected to be certified to the USEPA by the NJSDEP in a short time. Upon being awarded the Federal grant, the PVSC must advertise for receipt of bids in a timely manner. The following schedule shall be followed: one or more contracts must be advertised for bids within three months after receipt of the Federal grant. All nine contracts must be advertised for bids within seven months after receipt of the Federal grant.

Upon receipt by the USEPA of additional NJSDEP certified construction grant applications for completion of the facility upgrading, this permit shall be revised to include the appropriate schedules for advertising the remaining contracts.

*Facilities upgrading to be accomplished in two major construction phases. Phase I involved construction of new secondary settling facilities, biological units, pumping stations, maintenance building, etc., and the major part of the sludge handling facilities. Phase II involves the demolition of existing primary settling facilities and the construction of new primary settling facilities and the remaining sludge handling facilities.

NOTES:

- 1/ If the time period allotted for the completion of an interim requirement specified above is greater than 9 months, then the permittee shall submit a report detailing its progress toward completion of the interim requirement at the end of the first 9-month period and at the end of each succeeding 9-month period (including, of course, the report, specified above, required within 14 days following the specified completion date).
- 2/ Each notice of non-compliance shall include the following information:
- A. a short description of the non-compliance;
 - B. a description of any actions taken or proposed to be taken by the permittee to comply with the elapsed schedule requirement without further delay;

- C. a description of any factors which tend to explain or mitigate the non-compliance; and,
- D. an estimate of the date permittee will comply with the elapsed schedule requirement and an assessment of the probability that permittee will meet the next schedule requirement on time.

3/ It is recognized that sufficient flexibility must be maintained so that modifications to design parameters, necessitated by the results of the sewer system evaluation and wet weather study, may be made.

This permit shall become effective on February 28, 1975.

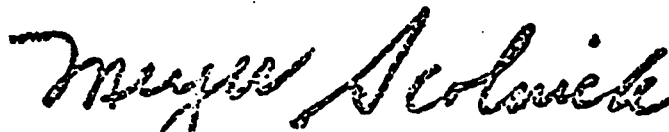
This permit and the authorization to discharge shall be binding upon the permittee and any successors in interest of the permittee and shall expire on June 30, 1977. The permittee shall not discharge after the above date of expiration. In order to receive authorization to discharge beyond the above date of expiration, the permittee shall submit such information, forms, and fees as are required by the agency authorized to issue NPDES permits no later than December 31, 1976.

By authority of _____

Gerald M. Hansler, P. E.
(Regional Administrator)

JAN 28 09 1975

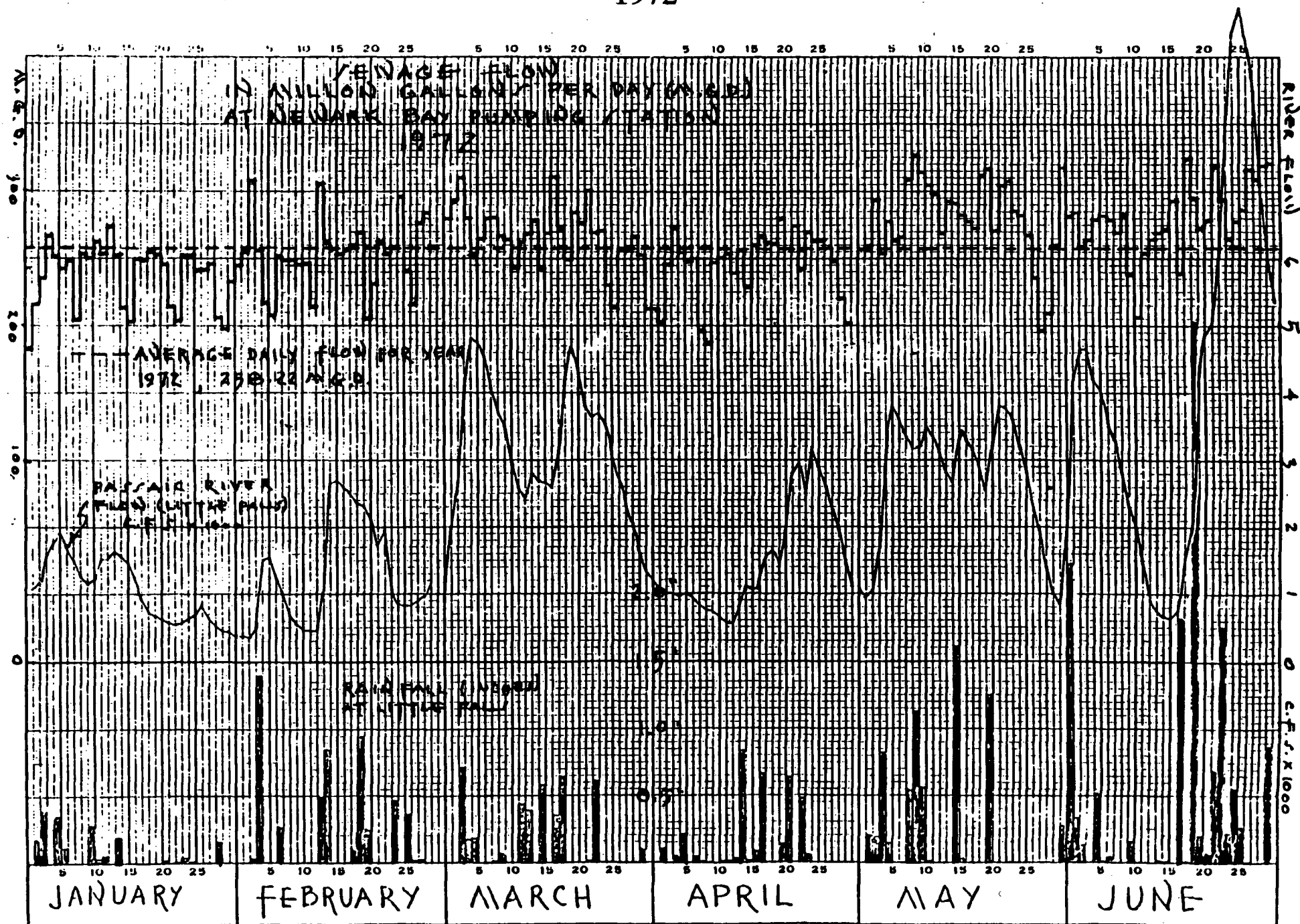
Date



Meyer Scolnick, Director
Enforcement and Regional
Counsel Division

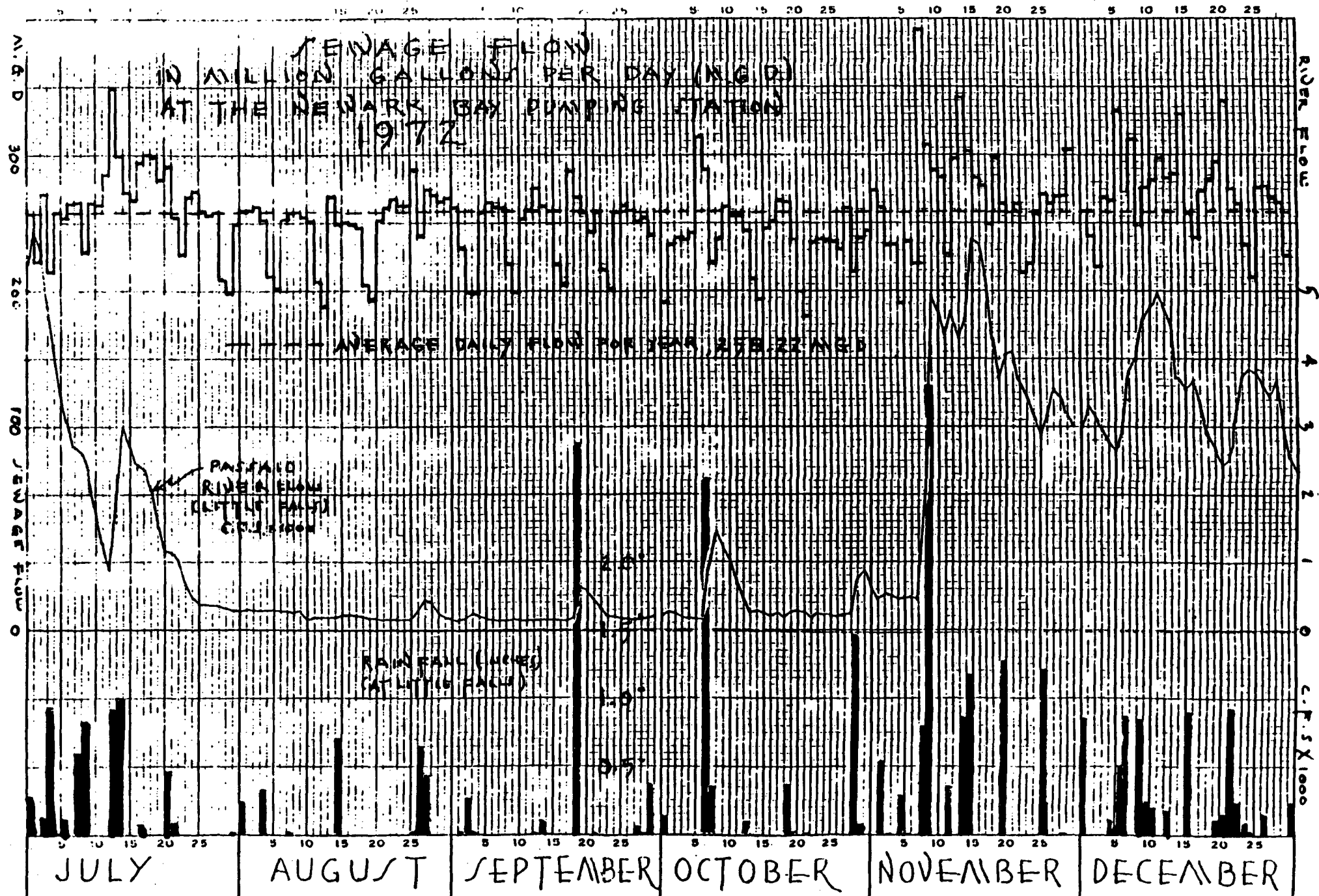
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1972

EXHIBIT B-1



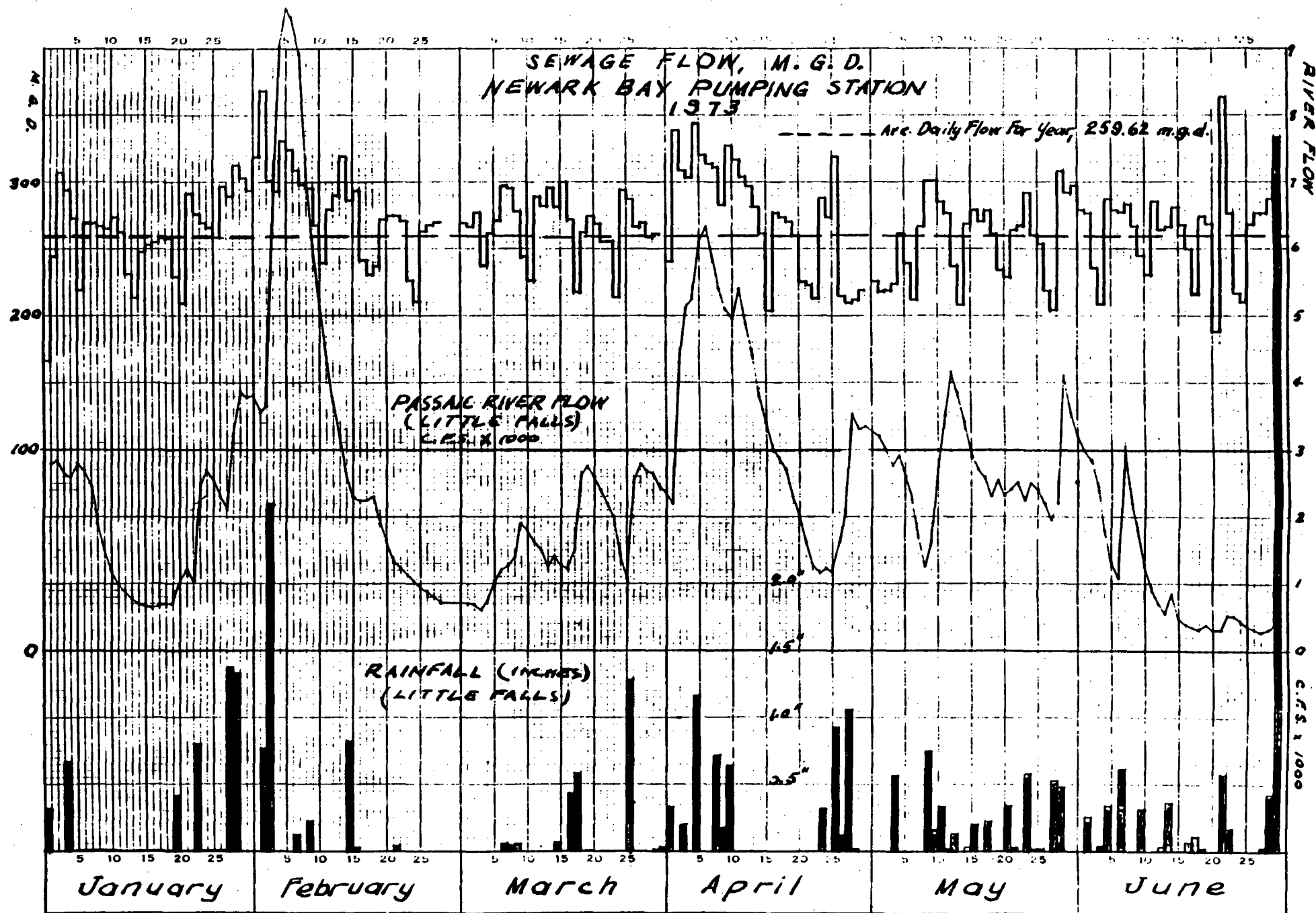
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1972

EXHIBIT B-2



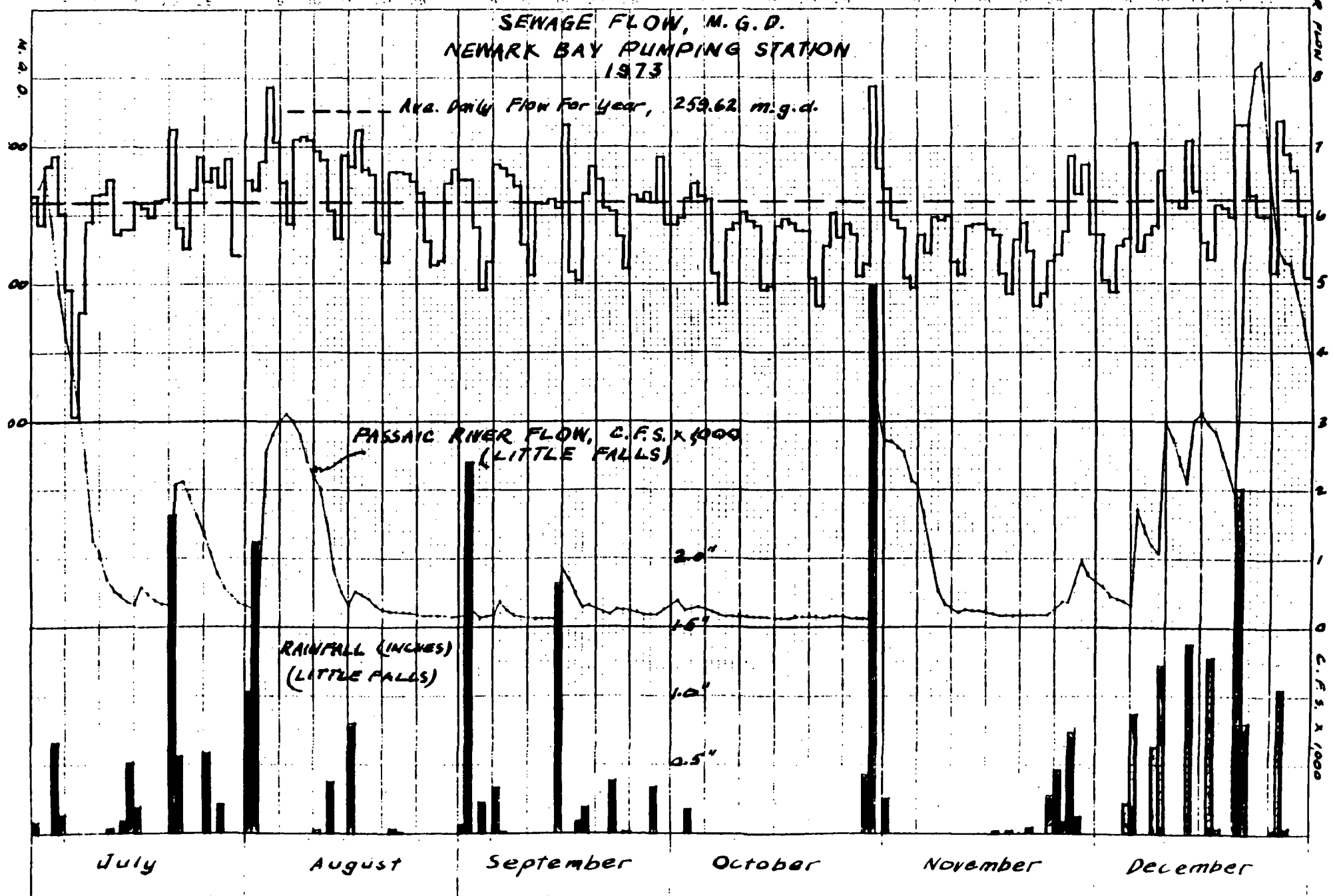
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1973

EXHIBIT B-3



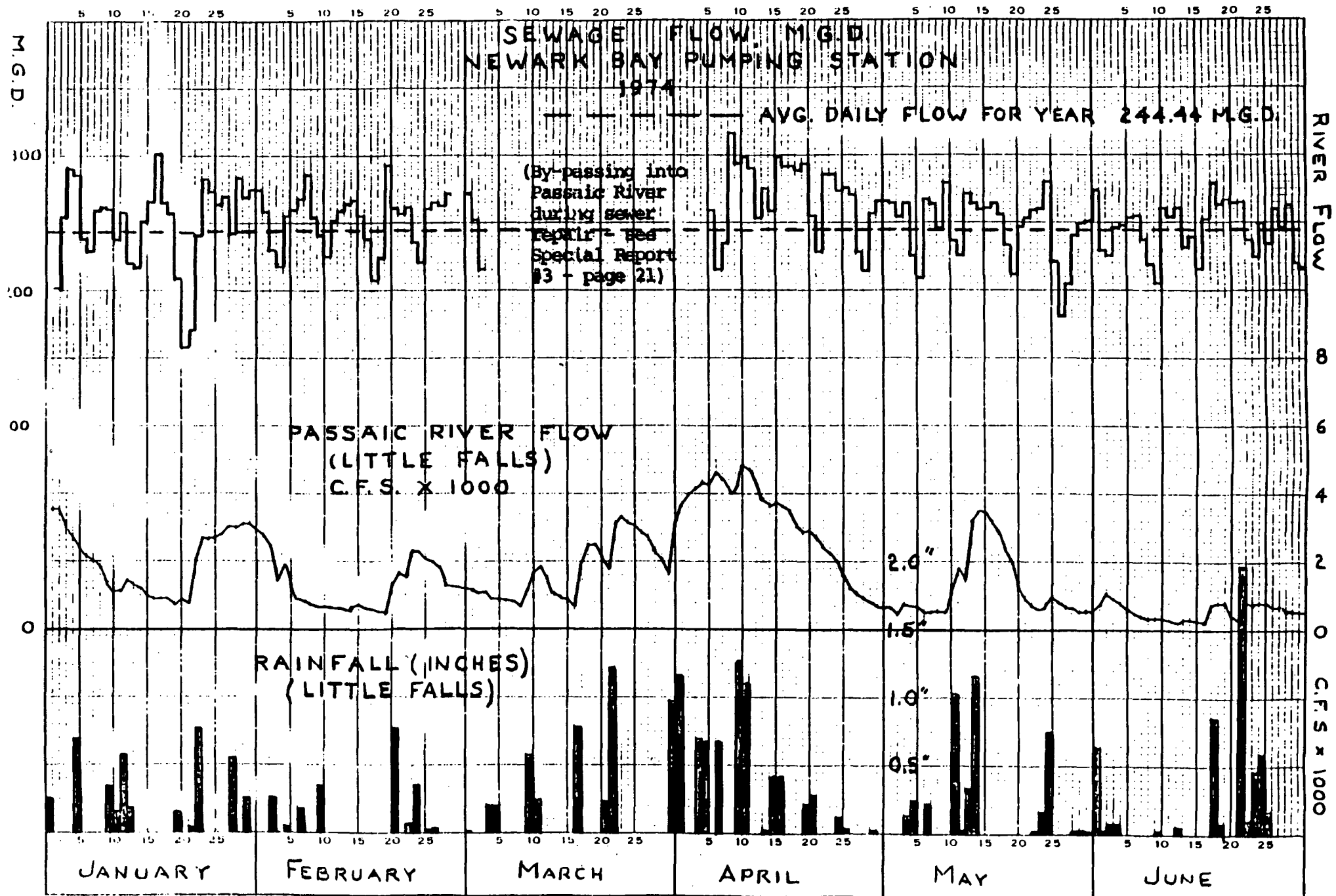
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1973

EXHIBIT B-4



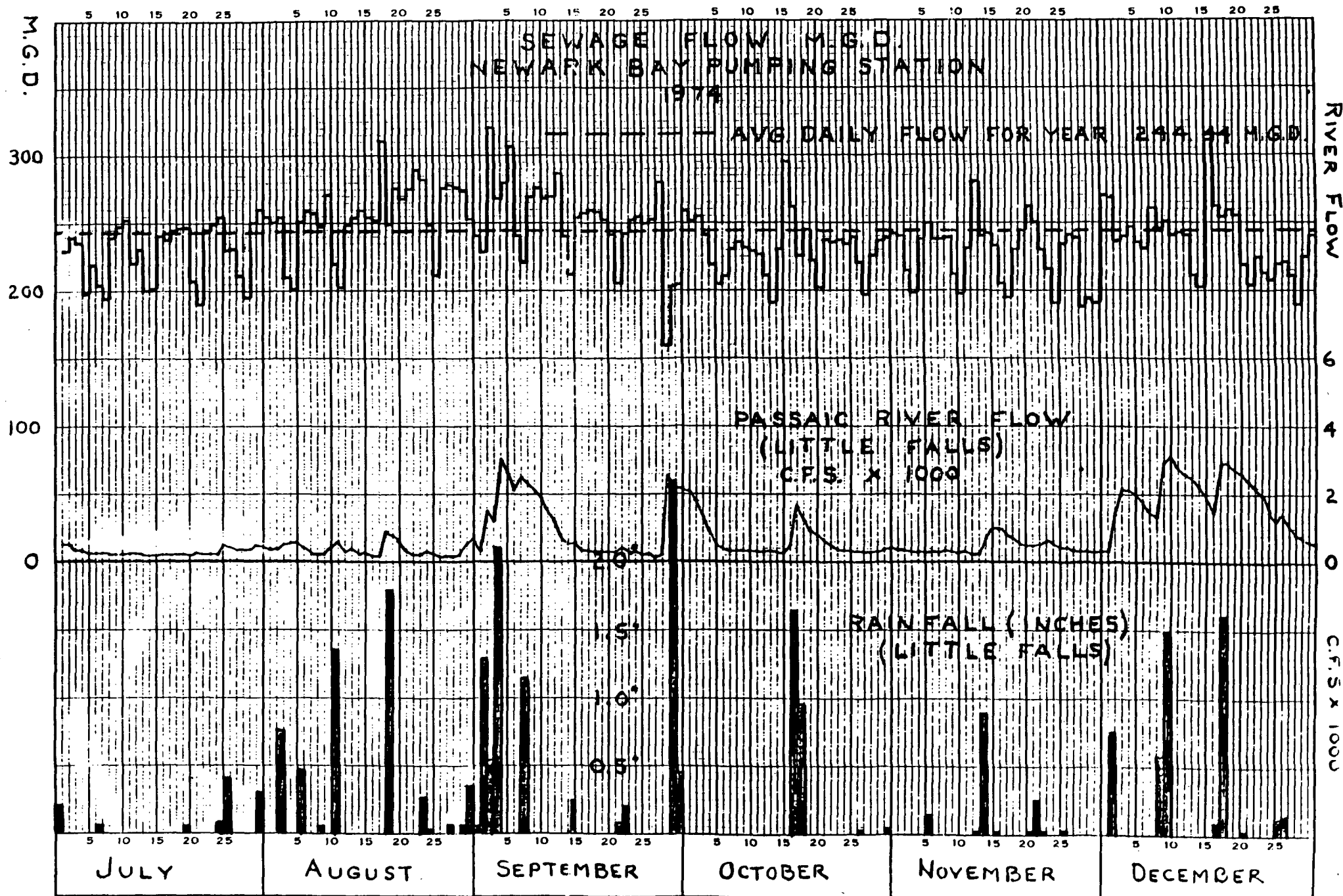
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1974

EXHIBIT B-5



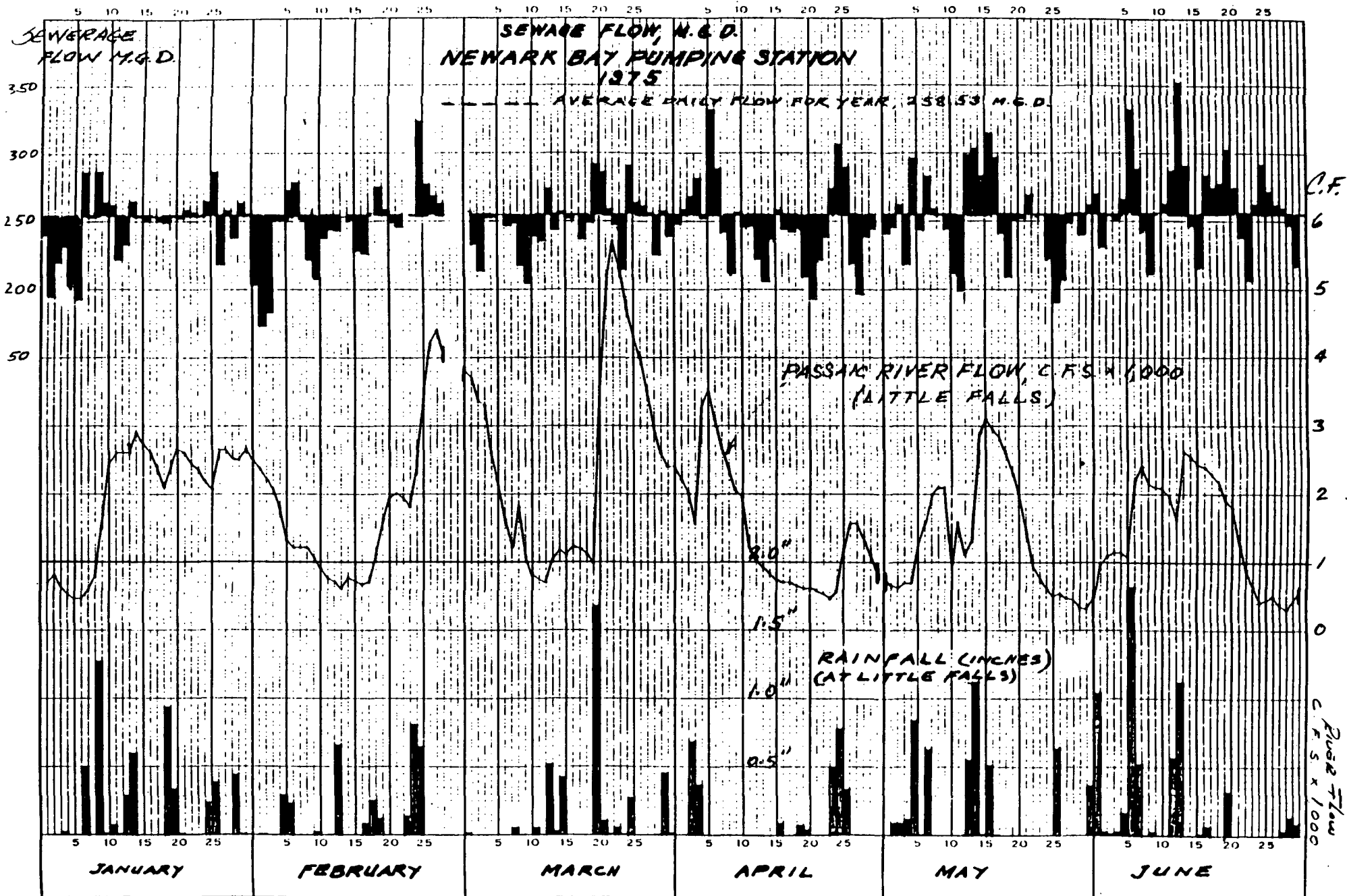
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1974

EXHIBIT B-6



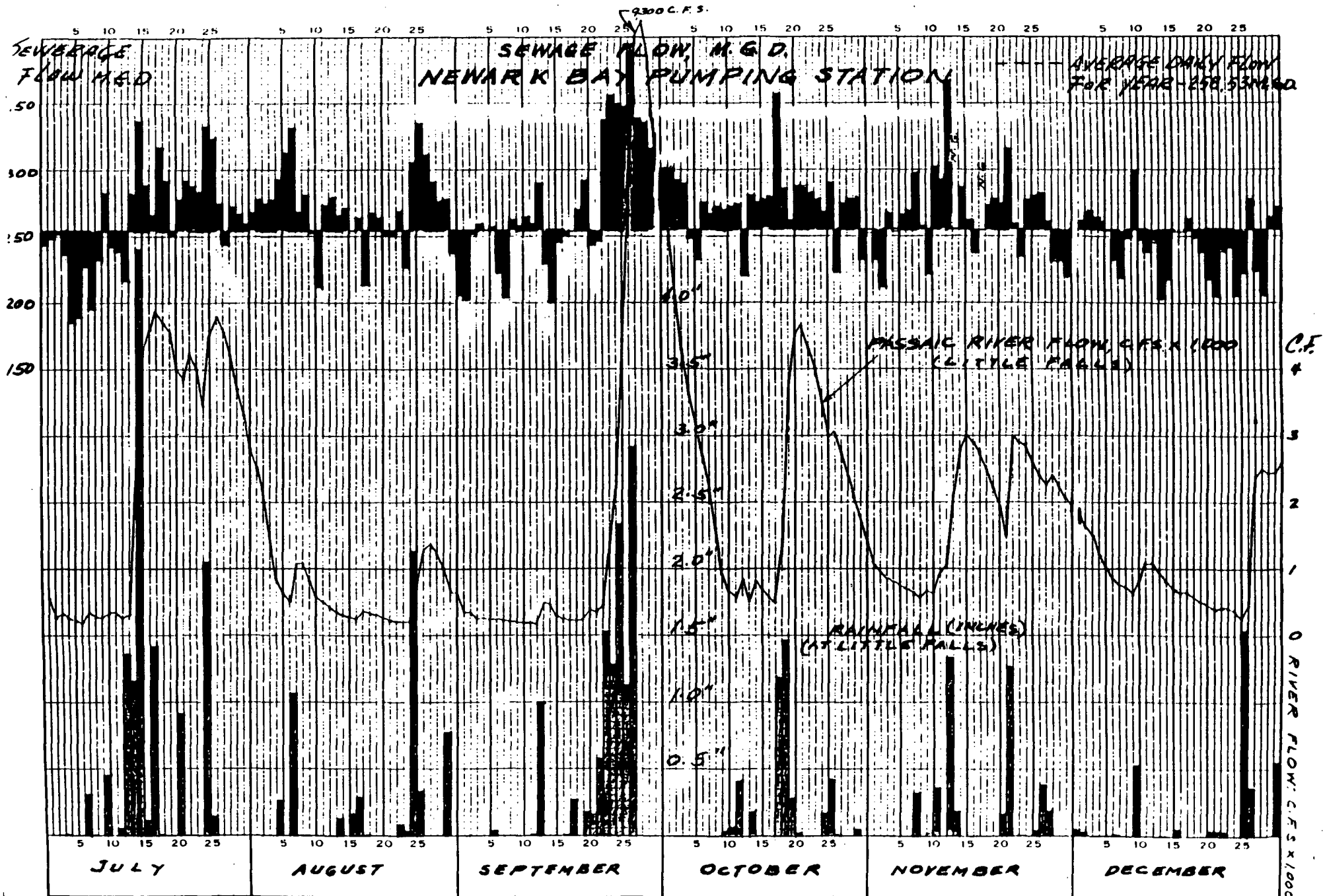
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1975

EXHIBIT B-7



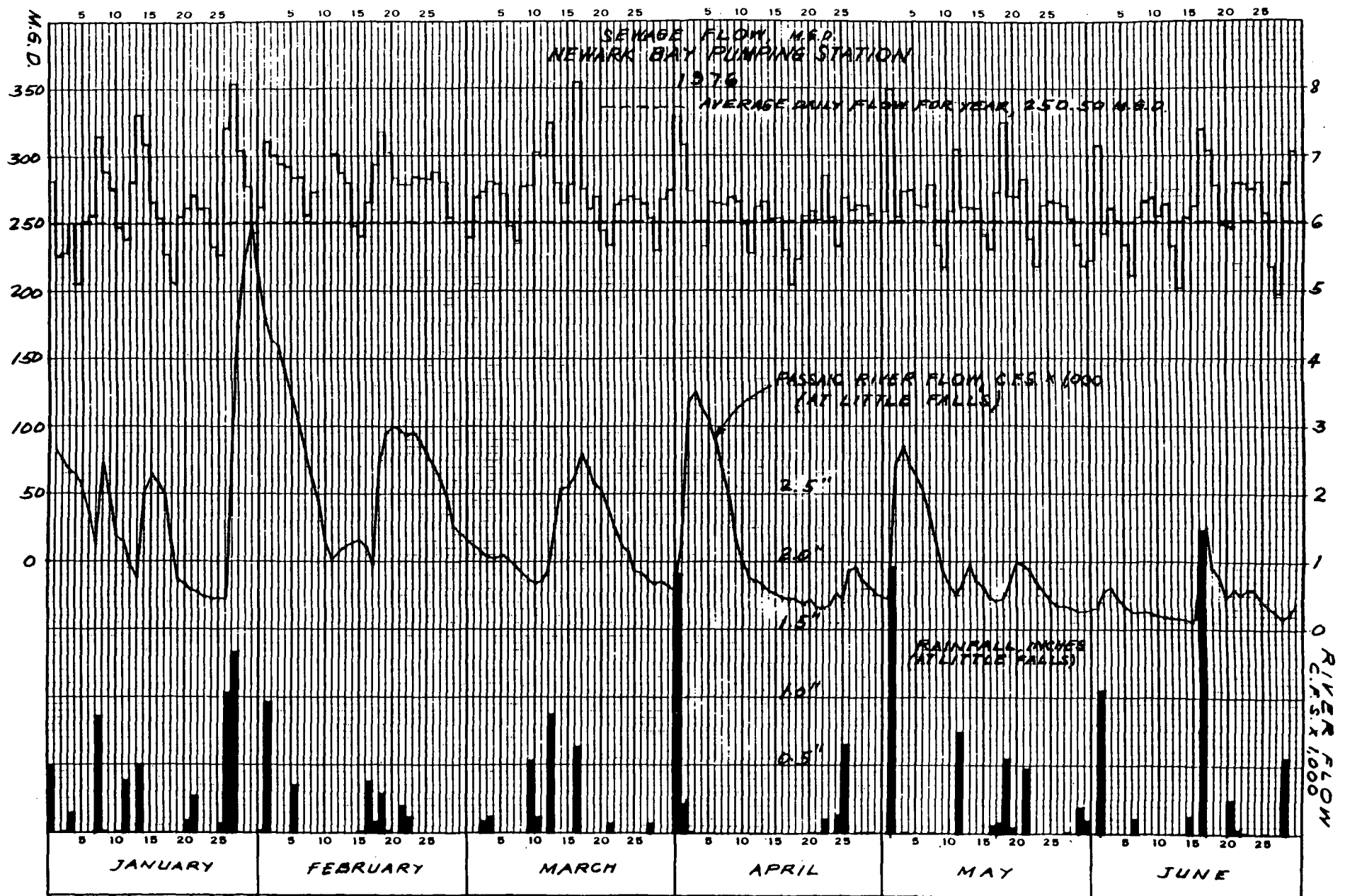
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1975

EXHIBIT B-8



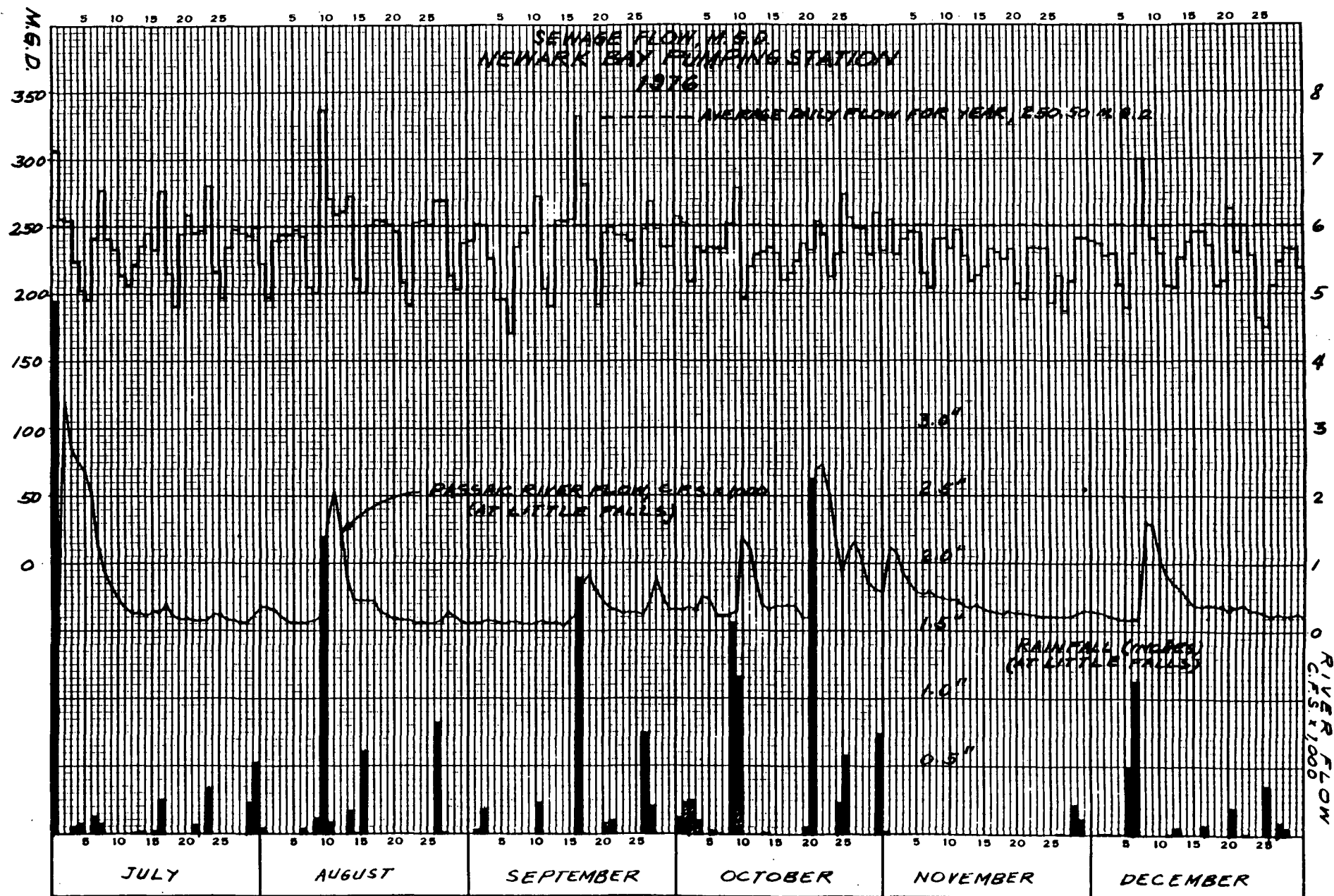
SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1976

EXHIBIT B-9



SEWAGE FLOW AND RIVER FLOW - PVSC ANNUAL REPORT 1976

EXHIBIT B-10



C

LOUIS BAY, 2ND
CHAIRMAN

WALTER J. DAVIS
VICE CHAIRMAN

CARMINE T. PERRAPATO
BENJAMIN W. GORDON
THOMAS LAZZIO
COMMISSIONERS

PASSAIC VALLEY SEWERAGE COMMISSIONERS
790 BROAD STREET
NEWARK, N.J. 07102

SEYMOUR A. LUBETKIN
CHIEF ENGINEER

JAMES V. SEGRETO
CHIEF COUNSEL

MRS. CHARLES T. SCHAEDEL
CLERK-TREASURER

Gentlemen:

The Passaic Valley Sewerage Commissioners are required by law to prevent pollution of the Passaic River and its tributaries, and also are required to exclude from entry into the sewerage system all discharges which may injuriously affect the integrity of the system.

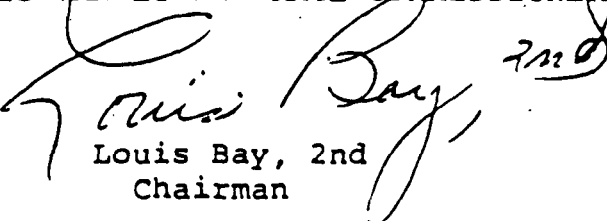
In addition to these requirements of the New Jersey Statutes, new Federal regulations provide minimum standards for effluent discharges.

The Commissioners are in the process of preparing standards for industrial waste discharges, both into rivers, streams, and tributaries, and into the Passaic Valley Sewerage Commissioners' system. In order to prepare realistic standards, a questionnaire is being mailed to all industries in the Passaic Valley Sewerage Commissioners' district. Your questionnaire is enclosed.

You are required to complete the questionnaire and return it to the Passaic Valley Sewerage Commissioners within thirty days. Your cooperation is requested. Any industrial user which does not complete the questionnaire will be required to terminate the further discharge of industrial waste.

Very truly yours,

PASSAIC VALLEY SEWERAGE COMMISSIONERS


Louis Bay, 2nd
Chairman

LB/k1
Enclosure

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
790 Broad Street
Newark, N. J. 07102

Date:

Plant Ref. No.

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name:

Address: Zip:

Person and Title to whom any further inquiries should be directed:

.....

Phone No.:

Number of Employees:

Number of Working Days Per Week:

Number of Shifts Per Day:

Area of Property: Acres, or Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.:

.....

Finished Product(s):

Average Production:

Raw Materials Used:

Brief Description of Operations:

.....

.....

.....

Water received in *Gallons* (Note: multiply cu. ft. x 7.48)

Purchased water in 1971 from:

1st Quarter

2nd Quarter

3rd Quarter

4th Quarter

Total Purchased 1971:

Well Water

1st Quarter

2nd Quarter

3rd Quarter

4th Quarter

Total well water received in 1971:

River Water

1st Quarter

2nd Quarter

3rd Quarter

4th Quarter

Total river water taken in 1971:

TOTAL OF ALL WATER RECEIVED IN 1971:

Water Use in 1971:

Water to Product (include evaporated and lost water):

Water to Sanitary Sewer:

Water to Storm Sewer, River or Ditch:

TOTAL WATER USE IN 1971:

Name of River, Stream, or Tributary, and location of storm sewer or ditch outlet to river, stream, or tributary:

**ANSWER THE FOLLOWING QUESTIONS ONLY IF THE
PLANT WASTE INCLUDES WASTE ATTRIBUTABLE TO INDUSTRIAL OPERATIONS**

(Note: Analyses should be based on a 24-hour composite sample)

Characteristics of Plant Waste discharged to sanitary or combined sewer, after treatment if any. Indicate units of measure where applicable (e.g. Mg/l).

- a) pH: b) Turbidity:
- c) Temperature: d) Radioactive? Yes No
- e) Solids Concentration:
- 1) Total Solids Volatile Mineral
- 2) Suspended Solids Volatile Mineral
- f) Oil and Grease Concentration:
- 1) Floatable Oils
- 2) Emulsified Oils
- g) Chlorides
- h) Chemical Oxygen Demand (C.O.D.):
- i) 5-day Bio-chemical Oxygen Demand (B.O.D.):
- j) Total organic carbon (T.O.C.):
- k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.)
-
-
- l) Toxic Material—Name and concentration e.g., cyanide salts, etc.):
-
- m) Solvents—Name and concentration:
-
- n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics):
-
- o) Date and time span of sample

Explain hours, method of discharge of waste to Sanitary Sewer and peak rate of flow, e.g., (continuing for 8 hours per day, 5 days per week at 100 gal./day rate) (batch twice a day for 2 minutes at 100 gal./min.) (Continuous 24 hours steady or with peaks at 2 P.M., peak rate 3 M.G.D.) etc.

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.....

Characteristics of Plant Discharge to Storm Sewer, River, or Ditch, after treatment if any. Indicate units of measure where applicable (e.g., Mg/l).

- a) pH: b) Turbidity:
- c) Temperature: d) Radioactive? Yes No
- e) Solids Concentration:
- 1) Total Solids Volatile Mineral
- 2) Suspended Solids Volatile Mineral
- f) Oil and Grease Concentration:
- 1) Floatable Oils
- 2) Emulsified Oils
- g) Chlorides
- h) Chemical Oxygen Demand (C.O.D.):
- i) 5-day Bio-chemical Oxygen Demand (B.O.D.):
- j) Total Organic Carbon (T.O.C.):
- k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.):
-
-
-
- l) Toxic Material—Name and concentration (e.g., cyanide salts, etc.):
-
-
- m) Solvents—Name and concentration:
-
-
- n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics):
-
-
- o) Date and time span of sample:
- Do you pretreat any waste before discharge?
- If so, describe process and disposal of residue removed:
-
-
-

Certification of Laboratory doing sampling and making analyses shall be given. Procedures shall be those shown in the 13th edition of Standard Methods for the Examination of Water and Wastewater, where applicable. If no procedure is applicable, the laboratory is to describe method and procedure used in analyses.

.....
Signature and title of person preparing report

Industrial Waste Survey (continued)

The industries covered are those identified in the Federal Standard Industrial Classification Manual, Bureau of Budget, under Category "Division D - Manufacturing".

A breakdown of the 348 industries with industrial waste and approximate volume is as follows:

<u>Name of Municipality</u>	<u>No. of Industries with Industrial Waste Forms Submitted</u>	<u>No. of Industries In This Summary With Completed Forms</u>	<u>M. G. Per Year (From 277 Industries)</u>	<u>M. G. Per Day (From 277 Industries)</u>
<u>BERGEN COUNTY</u>				
East Paterson	3	3	1,095.7	3.00
East Rutherford	4	4	131.7	.47
Fair Lawn	12	11	267.4	1.03
Garfield	6	6	3,071.4	8.53
Glen Rock	1	1	1.3	.005
Lodi	9	7	228.8	.87
Lyndhurst	2	2	180.1	.69
No. Arlington	0	0	0	0
Rutherford	0	0	0	0
Saddle Brook	4	3	7.7	.03
Wallington	1	0	0	0
BERGEN COUNTY TOTALS	<u>42</u>	<u>37</u>	<u>4,984.1</u>	<u>14.63</u>
<u>ESSEX COUNTY</u>				
Belleville	10	9	406.1	1.56
Bloomfield	7	7	465.6	1.57
East Orange	1	0	0	0
Glen Ridge	0	0	0	0
Montclair	0	0	0	0
Newark	112	85	6,329.4	20.22
Nutley	7	6	1,953.4	6.35
Orange	3	3	420.9	1.62
ESSEX COUNTY TOTALS	<u>140</u>	<u>110</u>	<u>9,575.4</u>	<u>31.32</u>
<u>HUDSON COUNTY</u>				
East Newark	0	0	0	0
Harrison	11	9	1,392.6	4.98
Kearny	15	13	911.5	3.51
HUDSON COUNTY TOTALS	<u>26</u>	<u>22</u>	<u>2,304.1</u>	<u>8.49</u>
<u>PASSAIC COUNTY</u>				
Clifton	34	25	1,869.6	6.47
Haledon	7	4	437.9	1.69
Hawthorne	11	10	913.5	3.52
Little Falls	0	0	0	0
Passaic	21	16	433.1	1.53
Paterson	67	53	2,120.5	7.67
Prospect Park	0	0	0	0
PASSAIC COUNTY TOTALS	<u>140</u>	<u>108</u>	<u>5,774.6</u>	<u>20.88</u>
<u>GRAND TOTALS</u>	<u>348</u>	<u>277</u>	<u>22,638.2</u>	<u>75.32</u>